

Frank H. Portugal, *et al.*

Serial No.: 09/027,439

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For: Compositions and Methods for
Differentiating Among *Shigella*
Species and *Shigella* from *E. coli*
Species

Group Art Unit: 1643

Examiner: J. Souaya

Atty. Docket No.: 044198.0000

CERTIFICATE OF MAILING
37 C.F.R. 1.8

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January 21, 1999
Date

Gloria L. Norberg

BOX NON-FEE AMENDMENT
Assistant Commissioner for Patents
Washington, D.C. 20231

**AMENDMENT; RESPONSE TO EXAMINER'S TELEPHONE REQUEST
REGARDING SEQUENCE LISTING**

Sir:

The present paper is submitted in response to the Examiner's telephone request regarding sequence listing information, confirmed to Mark J. Gatschet, Reg. No. 42,569, on January 4, 1999. No fees are believed due for submission of the present documents. However, the Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§1.16 - 1.21 which may be required to Akin, Gump, Strauss, Hauer, & Feld Deposit Account No. 01-0660.

AMENDMENT

In the Specification:

At the end of Table 1 on page 13, please insert:

23	nucleotide sequence of region 71-100 of <i>E. coli</i> (rrnG) (ECRRNGPK3) 16s rDNA
24	nucleotide sequence of region 71-100 of <i>E. coli</i> (rrrnE) (ECRRNEPK3) 16s rDNA
25	nucleotide sequence of region 71-100 of <i>E. coli</i> (rrnC) (ECRRNCPK3) 16s rDNA
26	nucleotide sequence of region 71-100 of <i>E. coli</i> (ATCC 25922) 16s rDNA
27	nucleotide sequence of region 71-100 of <i>E. coli</i> (ATCC 11775T) 16s rDNA
28	nucleotide sequence of region 71-100 of <i>S. dysenteriae</i> (French Strain) 16s rDNA
29	nucleotide sequence of region 71-100 of <i>S. dysenteriae</i> (ATCC 13313) 16s rDNA
30	nucleotide sequence of region 1001-1040 of <i>E. coli</i> (rrnC) (ECORRNCPK3) 16s rDNA
31	nucleotide sequence of region 1001-1040 of <i>E. coli</i> (ECOTSF) 16s rDNA
32	nucleotide sequence of region 1001-1040 of <i>S. sonnei</i> (French Strain) 16s rDNA
33	nucleotide sequence of region 1001-1040 of <i>S. dysenteriae</i> (ATCC 13313) 16s rDNA
34	nucleotide sequence of region 245-280 of <i>E. coli</i> (ECORRD) 16s rDNA
35	nucleotide sequence of region 245-280 of <i>E. coli</i> (rrnD) (ECRRNDPK3) 16s rDNA

Please delete Table 2 at page 26, line 17, to the end of page 31, and substitute Table 2 as follows:

-- Table 2. Sequence comparisons of 16s rDNA from *Shigella* sp. and *E. coli* sp.

ORGANISM	REGION ²	SEQUENCE
<i>E. coli</i> (ECORRD) ¹ SEQ ID NO:8	71-100	<div style="display: flex; justify-content: space-between;"> 80 90 100 </div> AACAGGAAGA AGCTTGCTCT TT GCTGACGA <small>(2 345678910)</small>
<i>E. coli</i> (rrnG) (ECRRNGPK3) SEQ ID NO:23	71-100	-----AC -----G- --/C\-----
<i>E. coli</i> (rrrnE) (ECRRNEPK3) SEQ ID NO:24	71-100	-----/T\-- --
<i>E. coli</i> (rrnD) (ECRRNDPK3)	71-100	-----AC -----G- --/C\-----

<i>E. coli</i> (rrnC) (ECRRNCPK3) SEQ ID NO:25	71-100	-----AC ----- --/C\-----
<i>E. coli</i> (rrnB) (ECRRNBPK3)	71-100	----- --/T\-- --
<i>E. coli</i> ATCC 25922 SEQ ID NO:26	71-100	-----CG -----/G\-- --
<i>E. coli</i> (rrnB) (ECRRNBZ)	71-100	----- --/T\-- --
<i>E. coli</i> ATCC 11775T SEQ ID NO:27	71-100	-----C -----/G\-- --
<i>E. coli</i> (rrnB) (ECRRNBZ)	71-100	----- --/T\-- --
<i>E. coli</i> K-12 (ECOTSF)	71-100	----- --/T\-- --
<i>E. coli</i> (rrnB) (ECORGNB)	71-100	----- --/T\-- --
<i>E. coli</i> (ECOUW89)	71-100	----- --/T\-- --
<i>E. coli</i> (ECOUW89)	71-100	----- --/T\-- --
<i>S. flexneri</i> ATCC 12022	71-100	-----C -----G- --/C\-----
<i>S. flexneri</i> French Strain	71-100	-----C -----G- --/C\-----
<i>S. flexneri</i> ATCC 29903 (present disclosure) SEQ ID NO:9	71-100	-----C -----G- --/C\-----
<i>S. sonnei</i> ATCC 9290	71-100	-----AC -----G- --/C\-----
<i>S. sonnei</i> French Strain	71-100	-----AC -----G- --/C\-----

<i>S. sonnei</i> ATCC 29930 (present disclosure) SEQ ID NO:10	71-100	-----AC -----G- --/C\-----
<i>S. dysenteriae</i> ATCC 13313 (present disclosure) SEQ ID NO:11	71-100	-----A---C -----
<i>S. dysenteriae</i> French Strain SEQ ID NO:28	71-100	-----C -----GC --/T\-----
<i>S. dysenteriae</i> ATCC 13313 SEQ ID NO:29	71-100	-----A---C -----G- --
<i>S. boydii</i> ATCC 8700 (present disclosure) SEQ ID NO:12	71-100	-----C ----- -C -----
92 <i>S. boydii</i> ATCC 9207	71-100	-----C -----G- --/C\-----
<i>E. coli</i> (ECORRD) SEQ ID NO:13	961-991	970 980 990 CGATGCAACG CGAAGAACCT TACCTGGTCT T
<i>E. coli</i> (rrrnG) (ECRRNGPK3)	961-991	-----
<i>E. coli</i> (rrrnE) (ECRRNEPK3)	961-991	-----
<i>E. coli</i> (rrrnD) (ECRRNDPK3)	961-991	-----
<i>E. coli</i> (rrnC) (ECRRNC)	961-991	-----
<i>E. coli</i> (rrnB) (ECRRNB)	961-991	-----

<i>E. coli</i> ATCC 25922	961-991	-----
<i>E. coli</i> (rrnB) (ECRRNBZ)	961-991	-----
<i>E. coli</i> ATCC 11775T	961-991	-----
<i>E. coli</i> (ECRRNBZ)	961-991	-----
<i>E. coli</i> (ECOTSF)	961-991	-----
<i>E. coli</i> (rrnB) (ECORGNB)	961-991	-----
<i>E. coli</i> (ECOUW89)	961-991	-----
<i>E. coli</i> (ECOUW89)	961-991	-----
<i>S. flexneri</i> ATCC 12022	961-991	-----
<i>S. flexneri</i> French Strain	961-991	-----
92 <i>S. flexneri</i> ATCC 29903 (present disclosure) SEQ ID NO:13	961-991	-----
<i>S. sonnei</i> ATCC 29930 (present disclosure) SEQ ID NO:14	961-991	---C-----X-----
<i>S. sonnei</i> French Strain X	961-991	-----
<i>S. sonnei</i> ATCC 9290	961-991	-----

<i>S. dysenteriae</i> ATCC 13313 (present disclosure) SEQ ID NO:13	961-991	-----
<i>S. dysenteriae</i> French Strain	961-991	-----
<i>S. dysenteriae</i> ATCC 13313	961-991	-----
<i>S. boydii</i> ATCC 9207	961-991	-----
<i>S. boydii</i> ATCC 8700 (present disclosure) SEQ ID NO:13	961-991	-----
<i>E. coli</i> (ECORRD) SEQ ID NO:15	1001- 1040	1010 1020 1030 GGAAGTTTTTC AGAGATGAGA ATG TGCCTTC 1040 GGGAACCGTG
<i>E. coli</i> (rrnD) (ECORNDPK3)	1001- 1040	-----
<i>E. coli</i> (rrnC) (ECORRNCBK3) SEQ ID NO:30	1001- 1040	-----NN-----
<i>E. coli</i> (rrnB) (ECRRNBK3)	1001- 1040	-----
<i>E. coli</i> ATCC 25922	1001- 1040	-----
<i>E. coli</i> (ECRRNBZ)	1001- 1040	-----
<i>E. coli</i> ATCC 11775T	1001- 1040	-----
<i>E. coli</i> (rrnB) (ECRRNBZ)	1001- 1040	-----

<i>E. coli</i> (ECOTSF) SEQ ID NO:31	1001- 1040	A---C---C- -----X-- T--/G\----- -----T---
<i>E. coli</i> (rrnB) (ECORGNB)	1001- 1040	----- -----
<i>E. coli</i> (ECOUW89)	1001- 1040	----- -----
<i>E. coli</i> (ECOUW89)	1001- 1040	----- -----
<i>S. flexneri</i> ATCC 12022	1001- 1040	----- -----
<i>S. flexneri</i> French Strain	1001- 1040	----- -----
<i>S. flexneri</i> ATCC 29903 (present disclosure) SEQ ID NO:15	1001- 1040	----- -----
<i>S. sonnei</i> ATCC 29930 (present disclosure) SEQ ID NO:16	1001- 1040	A---C---C- -----X-- T--/G\----- -----T---
<i>S. sonnei</i> French Strain SEQ ID NO:32	1001- 1040	-----C- -----GA- -A-/G\----- -----
<i>S. sonnei</i> ATCC 9290	1001- 1040	----- -----
<i>S. dysenteriae</i> ATCC 13313 (present disclosure) SEQ ID NO:17	1001- 1040	A---C---C- -----X--/T\TG----- -----T---
<i>S. dysenteriae</i> French Strain	1001- 1040	----- -----

<i>S. dysenteriae</i> ATCC 13313 SEQ ID NO:33	1001- 1040	A---CC--GT -----AC-- GG- ----- -----T---
<i>S. boydii</i> ATCC 9207	1001- 1040	----- -----
<i>S. boydii</i> ATCC 8700 (present disclosure) SEQ ID NO:15	1001- 1040	----- -----
<i>E. coli</i> (ECORRD) SEQ ID NO:34	245-280	AGCTAGTAGG TGGGGTAACG GCTCACCTAG GCGACG
<i>E. coli</i> (rrnG) (ECRRNGPK3)	245-280	----- -----
<i>E. coli</i> (rrnE) (ECRRNEPK3)	245-280	----- -----
<i>E. coli</i> (rrnD) (ECRRNDPK3) SEQ ID NO:35	245-280	----T--T-- -----A-- -----
<i>S. boydii</i> ATCC 8700 (present disclosure)	245-280	----T--T-- -----A-- -----

Please delete original SEQUENCE LISTING pages 36-45 and renumber original pages 46 - 51 to new pages 36 - 41. Please make of record in the present application substitute SEQUENCE LISTING pages 1 - 8.

REMARKS

The present paper is in response to Examiner's Souaya's telephone request that sequences of Table 2 that differ from an existing sequence listing be added to the SEQUENCE LISTING.

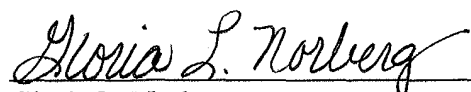
The present amendments to the specification add sequence identifiers to Table 2 as marked in red between carets in Attachment A. The same added sequence identifiers are added to Table 1. Further, SEQUENCE LISTING pages as originally filed are deleted, original claim and abstract pages are renumbered, and substitute SEQUENCE LISTING pages 1 - 8 are requested to be made of record in the present application.

Errors were found in Table 2 and are corrected by the amendment to the specification. Specifically, dashes (to indicate that a sequence is the same as the reference *E. coli* sequence) were omitted from lines 24, 30, 32, and 34 of page 26, lines 1, 3, 5, 7, 9, and 11 of page 27, lines 5, 7, 9, 11, 13, 15, 17, 21, 23, 25, 29, and 31 of page 30, and lines 1, 8, 15, and 21 of page 31. These corrections are also marked in red between carets in Attachment A. The context of Table 2, in particular, the definitions, as provided on page 7, line 2, and in superscript 1 on page 32, indicate that addition of the dashes does not constitute new matter. The original omission of the dashes was inadvertent.

Filed concurrently herewith is a statement under 37 CFR 1.821 (f) & (g), and a computer readable copy of the substitute sequence listing. Information recorded in computer readable form is identical to the written sequence listing. No new matter has been added to the specification by the amendments.

Respectfully submitted,

Date: January 21, 1999



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Agent for Applicants

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<i>E. coli</i> ATCC 11775T A SEQ ID NO:27A	71-100	-----C -----/G\-- -- -- -- -- ^ ^
<i>E. coli</i> (rrnB) (ECRRNBZ)	71-100	----- /T\-- -- -- -- -- ^ ^
<i>E. coli</i> K-12 (ECOTSF)	71-100	----- /T\-- -- -- -- -- ^ ^
<i>E. coli</i> (rrnB) (ECORGNB)	71-100	----- /T\-- -- -- -- -- ^ ^
<i>E. coli</i> (ECOUW89)	71-100	----- /T\-- -- -- -- -- ^ ^
<i>E. coli</i> (ECOUW89)	71-100	----- /T\-- -- -- -- -- ^ ^
<i>S. flexneri</i> ATCC 12022	71-100	-----C -----G- --/C\-----
<i>S. flexneri</i> French Strain	71-100	-----C -----G- --/C\-----
<i>S. flexneri</i> ATCC 29903 (present disclosure) SEQ ID NO:9	71-100	-----C -----G- --/C\-----
<i>S. sonnei</i> ATCC 9290	71-100	-----AC -----G- --/C\-----
<i>S. sonnei</i> French Strain	71-100	-----AC -----G- --/C\-----
<i>S. sonnei</i> ATCC 29930 (present disclosure) SEQ ID NO:10	71-100	-----AC -----G- --/C\-----
<i>S. dysenteriae</i> ATCC 13313 (present disclosure) SEQ ID NO:11	71-100	-----A---C ----- -- -- -- --
<i>S. dysenteriae</i> French Strain A SEQ ID NO:28A	71-100	-----C -----GC --/T\-----

<i>S. dysenteriae</i> ATCC 13313 SEQ ID NO: 29A	71-100	-----A---C -----G- -- -----
<i>S. boydii</i> ATCC 8700 (present disclosure) SEQ ID NO:12	71-100	-----C ----- -C -----
<i>S. boydii</i> ATCC 9207	71-100	-----C -----G- --/C\-----
<i>E. coli</i> (ECORRD) SEQ ID NO:13	961-991	970 980 990 CGATGCAACG CGAAGAACCT TACCTGGTCT T
<i>E. coli</i> (rrrnG) (ECRRNGPK3)	961-991	-----
<i>E. coli</i> (rrrnE) (ECRRNEPK3)	961-991	-----
<i>E. coli</i> (rrrnD) (ECRRNDPK3)	961-991	-----
<i>E. coli</i> (rrnC) (ECRRNC)	961-991	-----
<i>E. coli</i> (rrnB) (ECRRNB)	961-991	-----
<i>E. coli</i> ATCC 25922	961-991	-----
<i>E. coli</i> (rrnB) (ECRRNBZ)	961-991	-----
<i>E. coli</i> ATCC 11775T	961-991	-----
<i>E. coli</i> (ECRRNBZ)	961-991	-----
<i>E. coli</i> (ECOTSF)	961-991	-----
<i>E. coli</i> (rrnB) (ECORGNB)	961-991	-----
<i>E. coli</i> (ECOUW89)	961-991	-----
<i>E. coli</i> (ECOUW89)	961-991	-----

<i>S. flexneri</i> ATCC 12022	961-991	-----
<i>S. flexneri</i> French Strain	961-991	-----
<i>S. flexneri</i> ATCC 29903 (present disclosure) SEQ ID NO:13	961-991	-----
<i>S. sonnei</i> ATCC 29930 (present disclosure) SEQ ID NO:14	961-991	---C-----X-----
<i>S. sonnei</i> French Strain	961-991	-----
<i>S. sonnei</i> ATCC 9290	961-991	-----
<i>S. dysenteriae</i> ATCC 13313 (present disclosure) SEQ ID NO:13	961-991	-----
<i>S. dysenteriae</i> French Strain	961-991	-----
<i>S. dysenteriae</i> ATCC 13313	961-991	-----
<i>S. boydii</i> ATCC 9207	961-991	-----
<i>S. boydii</i> ATCC 8700 (present disclosure) SEQ ID NO:13	961-991	-----

<i>E. coli</i> (ECORRD) SEQ ID NO:15	1001- 1040	1010 GGAAGTTTTC 1040 GGGAACCGTG	1020 AGAGATGAGA ATG	1030 TGCCTTC
<i>E. coli</i> (rrnD) (ECORRNDPK3)	1001- 1040	----- -----	-----	----- ^ ^
<i>E. coli</i> (rrnC) (ECORRNCPK3) ^ SEQ ID NO:30 ^	1001- 1040	-----NN -----	-----	----- ^ ^
<i>E. coli</i> (rrnB) (ECRRNBPK3)	1001- 1040	----- -----	-----	----- ^ ^
<i>E. coli</i> ATCC 25922	1001- 1040	----- -----	-----	----- ^ ^
<i>E. coli</i> (ECRRNBZ)	1001- 1040	----- -----	-----	----- ^ ^
<i>E. coli</i> ATCC 11775T	1001- 1040	----- -----	-----	----- ^ ^
<i>E. coli</i> (rrnB) (ECRRNBZ)	1001- 1040	----- -----	-----	----- ^ ^
<i>E. coli</i> (ECOTSF) ^ SEQ ID NO:31 ^	1001- 1040	A---C---C- -----T---	-----X-- T--/G\-----	-----
<i>E. coli</i> (rrnB) (ECORGNB)	1001- 1040	----- -----	-----	----- ^ ^
<i>E. coli</i> (ECOUW89)	1001- 1040	----- -----	-----	----- ^ ^
<i>E. coli</i> (ECOUW89)	1001- 1040	----- -----	-----	----- ^ ^
<i>S. flexneri</i> ATCC 12022	1001- 1040	----- -----	-----	-----
<i>S. flexneri</i> French Strain	1001- 1040	----- -----	-----	----- ^ ^
<i>S. flexneri</i> ATCC 29903 (present disclosure) SEQ ID NO:15	1001- 1040	----- -----	-----	----- ^ ^

<i>S. sonnei</i> ATCC 29930 (present disclosure) SEQ ID NO:16	1001- 1040	A---C---C- -----X-- T--/G\----- -----T--- ^ ^
<i>S. sonnei</i> French Strain SEQ ID NO:32	1001- 1040	-----C- -----GA- -A-/G\----- -----
<i>S. sonnei</i> ATCC 9290	1001- 1040	----- ----- ^ ^
<i>S. dysenteriae</i> ATCC 13313 (present disclosure) SEQ ID NO:17	1001- 1040	A---C---C- -----X--/T\TG----- -----T---
<i>S. dysenteriae</i> French Strain	1001- 1040	----- ----- ^ ^
<i>S. dysenteriae</i> ATCC 13313 SEQ ID NO:33	1001- 1040	A---CC--GT -----AC-- GG- ----- ----T---
<i>S. boydii</i> ATCC 9207	1001- 1040	----- -----
<i>S. boydii</i> ATCC 8700 (present disclosure) SEQ ID NO:15	1001- 1040	----- ----- ^ ^
<i>E. coli</i> (ECORRD) SEQ ID NO:34	245-280	AGCTAGTAGG TGGGGTAACG GCTCACCTAG GCGACG
<i>E. coli</i> (rrnG) (ECRRNGPK3)	245-280	----- -----
<i>E. coli</i> (rrnE) (ECRRNEPK3)	245-280	----- -----
<i>E. coli</i> (rrnD) (ECRRNDPK3) SEQ ID NO:35	245-280	----T--T-- -----A-- -----
<i>S. boydii</i> ATCC 8700 (present disclosure)	245-280	----T--T-- -----A-- -----